

## Chapter 6 Test (and Review chapter 3,4,5) Outline

-state that the **slope** of a vertical line segment is “**undefined**” and of a horizontal line segment is **zero**. Explain why those are the slopes.

-find a **real-world slope** (ie ramp, roof, road, etc.) using  $m = \frac{\text{rise}}{\text{run}}$ . Express answer as simplified fraction.

-find the **slope** of a line **parallel** to or **perpendicular** to another line. (The initial line might be given in slope form, graph form, or in the form of two points (and the two points could be x= and y- intercepts), or in  $y = mx + b$  form).

-graph an equation by finding the **x-** and **y- intercepts**, plotting them, and joining the dots

-write an equation for a linear function

- In **slope-intercept** form, given the **slope** and **y-intercept**
- in **slope-intercept** form, given the **graph**
- In **slope-point** form, given the **slope** and a **point**

-convert **slope-intercept** form to **general** form

-convert general form to **slope-intercept** form

-convert **slope-point** form to **general** form

-given two points, find the **distance** between them, find the **slope** of the line, find the **midpoint** of the line (using formulas)

Chapter 3: Factor (*difference of squares, trinomial*, factor out greatest common factor)

Chapter 4:

- Convert a power with a **rational exponent** to a radical, and then simplify
- Convert a power with a **negative exponent** to a power with a positive exponent, and then simplify

Chapter 5: Given a graph, write the **domain** and **range** (the graph could be a line graph or a set of points)